<u>Listing of the Claims:</u>

1.   (Previously Presented) A method of determining product performance comprising the steps of:

collecting product performance data by forming a plurality of selectable databases containing product performance data for at least two of field performance, product change request, manufacturing performance, validation performance, prototype and pilot build inspection, measurement system performance, simulation, supplier development performance, process control, production process capability performance, manufacturing preventive maintenance, engineering development test performance, lessons learned, engineering calculations, dimensional tolerance stack-up analysis, internal/external part interface analysis, new customer requirement, supplier requirement, cost improvement, drawing change and tool wear;

determining the failure mode of detected product failures;

conducting a failure mode effect and analysis procedure to determine a degree of risk of a detected failure; and

developing corrective action to correct the detected failures.

2.   (Original) The method of claim 1 wherein determining the degree of risk comprises the steps of:

determining the severity of the effect of each failure; and

determining the frequency of occurrence of the effect of each failure.

3.   (Original) The method of claim 2 further comprising the step of:

ranking the determined severity of effects of a plurality of different detected failures to generate a plurality of different severity ranking values; and

ranking the determined frequency of occurrences of a plurality of different failures in ranked frequency of occurrence values.

4.   (Original) The method of claim 3 further comprising the step of:

determining a preliminary risk assessment of each failure as a product of the ranked severity value and the selected ranked frequency of occurrence value.

5.   (Original) The method of claim 4 further comprising the step of:

comparing the preliminary risk assessment with a threshold to determine high risk assessments.

6.   (Original) The method of claim 5 further comprising the step of:

determining the root cause of detected product failures for product failures having a preliminary risk assessment at least equal to a threshold.

7.   (Original) The method of claim 1 further comprising:

assigning a severity rank value to the each failure effect; and

assigning a rank value to the determined frequency of occurrence of each failure effect.

8.   (Original) The method of claim 1 further comprising the step of:

verifying the corrective action.

9.   (Original) The method of claim 8 wherein the step of verifying the corrective action comprises the step of:

ranking a validation of a failure corrective action based on at least one of the type of validation test, the sample size and the test time.

determining the failure mode of detected product failures;

conducting a failure mode effect and analysis procedure to determine a degree of risk of a detected failure; and

developing corrective action to correct the detected failures.

10.   (Previously Presented) A method of determining product performance comprising the steps of:

collecting product performance data;

determining a failure mode of detected product failures;

conducting a failure mode effect and analysis procedure to determine a degree of risk of a detected failure;

developing corrective action to correct the detected failures

verifying the corrective action by ranking a validation of a failure corrective action based on at least one of a type of validation test, a sample size and a test time; and

determining a final risk assessment for each corrective action equal to a product of a determined severity value, a determined frequency of occurrence value and a determined failure correction validation value.

11. (Original) The method of claim 10 further comprising the step of:

comparing the final risk assessment value with a threshold to determine failures requiring corrective action.

12. (Cancel)

13. (Previously Presented) The method of claim 1 further comprising the step of:

forming summary statistics of product performance failures for each selected product performance data database.

14. (Original) The method of claim 1 further comprising the step of: determining the cost of quality assessment.

15. (Original) The method of claim 14 wherein the step of determining the cost of quality assessment comprises the step of:

determining the total cost of quality assessment by the sum of prevention costs, appraisal costs and failure costs.

16.   (Previously Presented) A method of determining product performance comprising the steps of:

collecting product performance data;

determining the failure mode of detected product failures;

determining probability of occurrence of each detected failure;

ranking the probabilities of occurrence of each failure to obtain a occurrence value:

determining the severity of effects of each failure;

ranking the severity effects of each failure to obtain a ranked severity effect value;

determining a preliminary risk assessment of each failure as a product of the ranked severity value and the ranked frequency of occurrence value;

comparing the preliminary risk assessment with a threshold to determine high risk assessments, the comparing step including the steps of:

defining the threshold as a severity value at least equal to one ranked severity value; and

comparing a final risk assessment value with the threshold to determine failures requiring corrective action.

17.   (Cancel)

18.   (Previously Presented) The method of claim 16 further comprising the step of:

determining the root cause of detected product failures for product failures having a preliminary risk assessment at least equal to the threshold.

19.   (Original) The method of claim 18 further comprising the step
of:

developing a corrective action to the determined root cause of the
detected product failure; and

verifying the corrective action.

20.   (Previously Presented) The method of claim 19 wherein the
step of verifying the corrective action comprises the step of:

ranking a validation of a failure corrective action based on at least one
of a type of validation test, a sample size and a test time.

21.   (Previously Presented) A method of determining product
performance comprising the steps of:

collecting product performance data;

determining the failure mode of detected product failures;

determining probability of occurrence of each detected failure;

ranking the probabilities of occurrence of each failure to obtain a
occurrence value.

determining the severity of effects of each failure;

ranking the severity effects of each failure to obtain a ranked severity
effect value;

determining a preliminary risk assessment of each failure as a product of
the ranked severity value and the ranked frequency of occurrence value;

comparing the preliminary risk assessment with a threshold to determine
high risk assessments;

determining the root cause of detected product failures for product
failures having a preliminary risk assessment at least equal to a threshold;

developing a corrective action to the determined root cause of the
detected product failure;

verifying the corrective action by ranking a validation of a failure corrective action based on at least one of a type of validation test, a sample size and a test time; and

determining a final risk assessment for each corrective action equal to a product of the determined severity value, the determined frequency of occurrence value and the determined failure correction validation value.

22.   (Original) The method of claim 21 further comprising the step of:

comparing the final risk assessment value with a threshold to determine failures requiring corrective action.

23.   (Previously Presented) An apparatus for determining product performance comprising:

means for collecting product performance data;

means for determining the failure mode of detected product failures;

means for determining probability of occurrence of each detected failure;

means for ranking the probabilities of occurrence of each failure to obtain a occurrence value;

means for determining the severity of effects of each failure;

means for ranking the severity effects of each failure to obtain a ranked severity effect value;

means for determining a preliminary risk assessment of each failure as a product of the ranked severity value and the ranked frequency of occurrence value;

means for comparing the preliminary risk assessment with a threshold to determine high risk assessment;

means determining the root cause of detected product failures for product failures having a preliminary risk assessment at least equal to a threshold;

means for developing a corrective action to the determined root cause of the detected product failure;

means for verifying the corrective action, the verifying means including means for ranking a validation of a failure corrective action based on at least one of a type of validation test, a sample size and a test time; and

means for determining a final risk assessment for each corrective action equal to the product of a determined severity value, a determined frequency of occurrence value and a determined failure correction validation value;

24. (Original) The apparatus of claim 23 further comprising:

means for comparing the preliminary risk assessment with a threshold to determine high risk assessments.

25. (Original) The apparatus of claim 24 further comprising the step of:

means determining the root cause of detected product failures for product failures having a preliminary risk assessment at least equal to a threshold.

26. (Original) The apparatus of claim 25 further comprising the step of:

means for developing a corrective action to the determined root cause of the detected product failure; and

means for verifying the corrective action.

27. (Original) The apparatus of claim 26 wherein the step of verifying the corrective action comprises the step of:

means for ranking a validation of a failure corrective action based on at least one of the type of validation test, the sample size and the test time.

28. (Cancel)

Application Serial No. 10/085,292   **Page 9 of 10**
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29.   (Previously Presented) The apparatus of claim 23 further

comprising the step of:

comparing the final risk assessment value with a threshold to determine

failures requiring corrective action.

30.   (Cancel)

31.   (Original) The method of claim 16 wherein the step of

comparing the preliminary risk assessment with a threshold further comprises the step

of:

defining the threshold as a customer override input.